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DEPARTMENT OF DEFENSE HANDBOOK

FOR

EVALUATION OF

COMMERCIAL OFF-THE-SHELF

(COTS)

MANUALS



This handbook is for guidance only. Do not cite this document as a requirement.

AMSC NO. N/A

AREA TMSS

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MIL-HDBK-1221

FOREWARD

1. This military handbook is approved for use by all Departments and Agencies of the Department of Defense.

2. This handbook is for guidance only. This handbook cannot be cited as a requirement. If it is, the contractor does not have to comply.

3. Beneficial comments (recommendations, additions, deletions) and any pertinent data that may be used in improving this document should be addressed to: USAMC Logistics Support Activity, ATTN: AMXLS-AP, Redstone Arsenal, AL 35898-7466, by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter. Comments may be given using FAX number: 205-955-9850 (DSN 645), or E-Mail address: CCASEY@LOGSA-EMH2.ARMY.MIL.

MIL-HDBK-1221

1. SCOPE

1.1 **Scope**. This handbook provides criteria for evaluating manuals for acceptance. It provides guidance for preparing supplemental data to manuals. In this handbook, the term "manual" means the same as COTS or COTS manual. This handbook is for guidance only. This handbook cannot be cited as a requirement. If it is, the contractor does not have to comply

1.2 **Application**. This handbook applies to manuals that support: 1) equipment designed and manufactured for commercial use, and 2) commercial equipment used in a commercial or military environment.

2. APPLICABLE DOCUMENTS.

2.1 **Government documents**.

2.1.1 **Specifications, standards, and handbooks**. The following specifications form a part of this document to the extent specified herein and is referenced for guidance only. Unless otherwise specified, the issues of the documents below will be those listed in, and supplement to, the Department of Defense Index of Specifications and Standards (DODISS).

MILITARY SPECIFICATION

MIL-M-38784	Manuals, Technical: General Style and Format Requirements
MIL-M-87268	Manuals, Interactive Electronic Technical: General Content, Style, Format, and User-Interaction Requirements

(Unless otherwise indicated, copies of the above documents are available from the Standardization Document Order Desk, Bldg. 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

2.2 **Order of precedence**. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. ACRONYMS AND DEFINITIONS

3.1 **Acronyms used in this handbook.** The acronyms used in this handbook are defined as follows:

- a. COTS -- Commercial off-the-shelf manuals
- b. DODISS -- Department of Defense Index of Specifications and Standards
- c. FAR -- Federal Acquisition Regulation
- d. IPR -- In-Process Review
- e. NSN -- National stock number
- f. OSHA -- Occupational Safety and Health Act
- g. PN -- Part number
- h. TMDE -- Test, measurement, and diagnostic equipment
- I. TMQA -- Technical manual quality assurance

3.2 **Definitions.** The definitions of terms below apply as they are used in this handbook.

3.3 **CAUTION:** Highlights an essential operating or maintenance procedure, practice, condition, statement, etc., that, if not strictly observed, could result in damage to, or destruction of, equipment or loss of mission effectiveness.

3.4 **Commercial off-the-shelf (COTS) manuals.** Manuals available off-the-shelf from a commercial source which include operation, maintenance, and other instructions for commercial equipment. Commercial manuals are prepared to support the equipment in the commercial market.

3.5 **Comprehensibility.** A measurement of the completeness with which a user representative understands the text or text-graphics combination.

3.6 **Contracting activity** An element of an agency designated by the agency head and delegated broad authority regarding acquisition functions.

3.7 **NOTE:** Highlights an essential operating or maintenance procedure, condition, or statement.

3.8 **Supplemental data.** Any data that augments or complements a commercial off-the-shelf manual whether by change, correction, or addition to make the manual acceptable for use by the Department of Defense.

3.9 **WARNING:** Highlights an essential operating or maintenance procedure, practice, condition, statement, etc., that, if not strictly observed, could result in long-term injury or death to personnel.

3.10 **Weapon systems.** Items that can be used directly by the Armed Forces to carry out combat missions.

4. EVALUATION CRITERIA

4.1 **Style and format.**

4.1.1 **Comprehensibility/readability/legibility.** The manual should be written for the target audience in a language free of vague and ambiguous terms, using the simplest words and phrases that will convey the intended meaning. The type should be an easy-to-read size (i.e., no smaller than 6 points for pocket-size manuals and no smaller than 8 points for all other size manuals).

4.1.2 **Arrangement.** The overall arrangement of content, even though vendor unique, should be organized in a fashion that is easy for the user to follow.

4.1.3 **Size.** Manual size should range from no smaller than 4 by 5 1/2 inches to no larger than 17 by 11 inches as directed by the contracting activity.

4.1.4 **Safety.** The manual should include safety information that is consistent with the Occupational Safety and Health Act (OSHA) standards.

4.1.5 **Warnings, cautions, and notes.** The manual should contain appropriate warnings, cautions, and notes. Refer to MIL-M-38784 for additional guidance.

4.1.6 **Federal environmental protection standards.** Information on using, transporting, handling, storing or disposing of fuel, toxic or hazardous substances, chemicals, ordnance, and munitions should be consistent with Federal Environmental Standards and be clearly stated.

4.1.7 **Illustrations**. The manual should contain illustrations to support the text. The illustrations should be integrated with the text or placed in a specific location and referenced in the text.

4.1.8 **Maintenance**. The manual should accurately reflect the maintenance philosophy of the hardware. The manual should contain information concerning the level at which maintenance will be performed.

4.1.9 **Copyright release/rights in data**. The manual should include the appropriate copyright release or rights in data statements) in accordance with the FAR (and its applicable supplements) and as established by the contract.

4.2 **Content requirements**. Unless otherwise specified by the contracting activity, acceptable manuals should contain, but not be limited to, the following data:

- a. Front matter: Cover or title page, table of contents, and safety precautions.
- b. Introduction.
- c. Preparation for use and installation.
- d. Principles of operation.
- e. Operating instructions.
- f. Maintenance and servicing instructions (preventive and corrective).
- g. Reprogramming.
- h. Preparation for shipment.
- i. Storage.
- j. Parts list.
- k. Operational and maintenance illustrations.
- l. Overhaul instructions (as applicable).

4.2.1 **Front matter**.

4.2.1.1 **Cover**. The manual should have a cover, title page, or first page showing the date the manual was issued, revision designator (if applicable), the manufacturer's identification name and address, the equipment name, the manufacturer's model

designation, and serial or identification numbers for the equipment covered.

4.2.1.2 **Table of contents.** A manual should contain a table of contents.

4.2.1.3 **Safety precautions.** The manual should contain safety precautions regarding hazards, such as high voltage, that may be present during installation, operation, or maintenance of the equipment. Health hazards (e.g., electrostatic discharge, radio frequency radiation, radioactive materials, the presence of poisonous fumes or explosive gases, and the depletion of oxygen from the air in a closed environment) should be preceded by a warning or caution at the point in the procedure at which the hazard is likely to be encountered. All WARNINGS and CAUTIONS should be duplicated on the inside front cover and on the following pages as appropriate.

4.2.2 **Introduction.** The manual should contain the following introductory material, as applicable:

- a. Purpose and function(s).
- b. Capabilities.
- c. Performance characteristics.
- d. Description (equipment model, dimensions, weight, volume, and center of gravity, when applicable).
- e. Power and utility information.
- f. Environmental information.
- g. List of items furnished.
- h. List of additional items required for operation and maintenance, but not supplied with equipment.
- i. Tools and test equipment.
- j. Shipping and handling precautions.

4.2.3 **Preparation for use and installation instructions.** The manual should contain instructions for unpacking,, assembling, and installing the equipment (including special installation requirements). Inspection criteria of the equipment for in-shipment damages should be included.

4.2.4 **Principles of operation.** The manual should contain principles of operation information at the technical level necessary for the intended user.

4.2.5 Operating instructions. Operating instructions should include the following:

- a. Illustrations and explanations of the uses and functions of all controls and indicators (including settings and readings, if applicable).
- b. Initial adjustments and control settings.
- c. Start-up procedures.
- d. Normal operation.
- e. Operation under emergency, adverse, or abnormal conditions (if different from normal operating procedures).
- f. Shutdown procedures.
- g. Emergency shutdowns (if required).

4.2.6 Maintenance and servicing instructions (preventive and corrective). Maintenance and servicing instructions should contain information as specified in the following subparagraphs. Instructions should include a list of test equipment, special tools, and materials needed for maintenance and service.

4.2.6.1 Cleaning and lubrication. Periodic cleaning and lubrication information on the types of cleaning agents or lubricants (commercial or military) should be included. Recommended intervals for lubrications should be given. Lubrication points and required amounts should be identified. When applicable, a picture format for lubrication instructions should be included to clearly illustrate the location of each lubrication point. Cleaning and lubrication during repair, replacement, or reassembly should be included in the instructions covering those actions.

4.2.6.2 Performance verification. When appropriate, instructions on test equipment hookup, location of test connections, actions to take in performing the test, normal indications, and any adjustments should be provided. If an item of equipment requires calibration or adjustment to ensure serviceable accuracy (performance verification), instructions, a list of the Test, Measurement, and Diagnostic Equipment (TMDE), and the recommended frequency should be provided.

4.2.6.3 **Inspection**. Instructions and recommended frequencies for inspection of equipment should be provided within the manufacturer's maintenance concept. Information should include allowable service limits such as wear, backlash, end play, balance, and length and depth of scoring. (Allowable service limits are not to be confused with manufacturing tolerances; they are acceptable wear tolerances that will not impair performance.)

4.2.6.4 **Troubleshooting**. Malfunctions that might occur during operation of the equipment should be identified. Troubleshooting data and fault isolation techniques should include: (a) the indication or symptom of trouble, (b) the instructions necessary, including test hookups, to determine the cause, and (c) action to restore the equipment to operating conditions.

4.2.6.5 **Disassembly, repair, replacement reassembly and checkout**. Sequential instructions for disassembling, repairing, replacing, and reassembling the equipment should be provided. Test, adjustment, and checkout data after reassembly should be provided.

4.2.7 **Reprogramming**. Equipment with reprogrammable memory should include: procedures on program setup, program loading, programming procedures, and program confidence checkout.

4.2.8 **Preparation for shipment**. Manuals should contain instructions for the following, as applicable:

a. Disassembly, removal, and separate packaging of electrostatic discharge sensitive devices or fragile components.

b. Use of reusable shipping cases or containers.

c. Special cradles.

d. Mounting.

e. Securing.

f. Covering and preservation.

g. Precautions for shipment.

h. Shipment and unloading.

4.2.9 **Storage**. Manuals should contain instructions for the following, as applicable:

a. Indoor and outdoor storage.

b. Temperature and other environmental limitations.

- c. Storage facilities.
- d. Dunnage.
- e. Ventilation.
- f. Revetting.
- g. Drainage.
- h. Staking.
- I. Grounding.
- j. Covering.
- k. Preservation.
- l. Purging.

4.2.10 **Parts list**. The manual should include a list that positively identifies parts that support the equipment.

4.2.10.1 **Parts list illustrations**. All parts, and their relationships and locations, should be identified with clear and legible illustrations.

4.2.10.2 **Parts listings**. Part numbers and names should be illustrated or separately listed. When the illustrations do not contain part numbers and names, both the illustrations and separate listings should show either index, reference, or key numbers that will cross-reference illustrated parts to listed parts. The parts list should provide the actual manufacturer or vendor and their part number or generic description. Parts in the listings should be grouped by assemblies, subassemblies, and modules with the parts identified to the assembly of which they are components.

4.2.10.3 **Common commercial parts**. Common commercial hardware and items not of special design (e.g., bolts, washers, nuts, screws, fittings, keys, hinges, wire, cable, gasket material, tubing, hose, etc.) that are obtainable from a wide range of sources should either be identified by part number or the notation "Commercial." The part name (nomenclature or description) should be complete enough to facilitate substitution of equivalent items from existing Government stock as in the example below:

Example:

Figure and Index No.	Part No.	Part Name (Nomenclature or Description)
2-4	Commercial	NUT, Hex head, plain steel, 1/4-20 UNC-3B
2-5	Commercial	WIRE, Electrical, copper, tin plated, No. 14 AWG, 19 strand of No. 27 AWG, 0.250 in. dia.

4.2.11 **Operational and maintenance illustrations.** Manuals should contain illustrations (line drawings, photographs or halftones) for locating and identifying all components significant to operation and maintenance and to show configuration and parts relationship for removal and disassembly procedures. Photographs (prescreened) should be detailed and sharp, free of heavy shadows, distorted objects, and cluttered foregrounds or backgrounds, and should give good contrast from white, middle tones, and black. Freehand sketches should not be acceptable.

4.2.11.1 **Diagrams.** As applicable, the following diagrams should be included in the manual:

- a. Simplified functional block.
- b. Locator.
- c. Piping.
- d. Plumbing.
- e. Hydraulic.
- f. Schematic.
- g. Electrical.
- h. Logic.
- I. Other, as necessary.

4.2.11.2 **Symbols.** Symbols used on illustrations and diagrams should be standard or common to the trade or commodity. Where nonstandard symbols are used, explanations should be provided.

4.2.12 Overhaul instructions. When applicable, the manual should include overhaul instructions to return the equipment to mission-capable condition. As a minimum, the instructions should include the following:

- a. List of support equipment, special tools, and facilities required.
- b. List of mandatory parts.
- c. Preshop analysis, as applicable.
- d. Step-by-step procedures for performing all functions including disassembly, removing, replacing, diagnosing, installing, repairing, assembly, in-process testing, adjusting, and inspecting.
- e. Final tests to assure satisfactory performance of the equipment or system overhauled.

4.2.13 Interactive Electronic Technical Manuals (IETM). The common requirements for digital form IETM'S, designed for interactive display, can be found in MIL-M-87268, Manuals, Interactive Electronic Technical: General Content, Style, Format, and User-Interaction Requirements.

5. SUPPLEMENTAL DATA

5.1 If after evaluation, it is determined the manual requires supplemental data, the supplemental data should be prepared using the following guidance.

5.1.1 Identifying Technical Publication Sheet. The contracting activity may require the contractor to prepare an Identifying Technical Publication Sheet. An example is shown in Figure 1. The Identifying Technical Publication Sheet should be tailored to reflect only information applicable to the acquisition. MIL-M-38784 provides guidelines for the appropriate distribution statement, disclosure notice, destruction notice, and authority notice. Other pertinent data should be inserted by the contractor as provided by the Government.

5.1.2 Style, format, and form. Unless otherwise specified, general style and format of supplemental data should be in accordance with MIL-M-38784.

5.2 Content/format selection summary. The content of the supplemental data should be as specified on the Content/Format Selection Summary Sheet (Appendix C). The supplemental data should be presented in the following order:

- a. Cover and title page (see 5.6 and 5.7).
- b. List of effective pages (Navy and Marine Corps only) (see 5.8).
- c. Safety summary/warning page(s) (see MIL-M-38784).
- d. Approval and procurement record page (Fig. 3).
- e. Table of contents (MIL-M-38784).
- f. Reporting of errors statement (MIL-M-38784).
- g. Maintenance forms and records.
- h. Administrative storage.
- I. Destruction of military material to prevent enemy use.
- j. Lubrication order/instructions.
- k. Preventive Maintenance Checks and Services (PMCS).
- l. Maintenance Allocation Chart (MAC).
- m. Components of End Item (COEI) and Basic Issue Items (BII) list.
- n. Additional authorization list (ALL).
- o. Expendable supplies and materials list.
- p. Repair Parts and Special Tools List (RPSTL) (5.10).
- q. Recommended changes, activity comment sheet, or manual deficiency report applicable to the particular service, as provided by the contracting activity.
- r. Other requirements as specified. (When using manuals evaluation checklist as a guide, other required data may be indicated thereon.)

5.3 Warranty information. If applicable, the COTS manuals supplemental data shall contain warranty information pertinent to the equipment covered. It shall include data such as duration of warranty and serial numbers of equipment covered. If warranty is covered separately, or in another document, reference shall be made to that document.

5.4 Advertising. Except for the identity of the manufacturer or contractor, supplemental data shall not contain advertising.

5.5 **Equipment/model coverage.** Only equipment/models, accessories, and components specified in the contract shall be covered in the supplemental data.

5.6 **End item identification.** Unless otherwise specified, the federal item name, national stock number (NSN), part number (PN), model number, and applicable contractor number shall be overprinted on the cover or the title page of the manual.

5.7 **Publication number and date.** The publication number, provided by the contracting activity, and date shall be overprinted on the cover and first page of the supplemental data, in accordance with MIL-M-38784, or as specified by the contracting activity.

5.8 **List of effective pages.** Unless specified, a list of effective pages that will include the basic manual and the supplemental data shall be prepared in accordance with MIL-M-38784.

5.9 **Lubrication instructions.** If required, lubrication charts or instructions shall be included in the supplemental data or prepared separately, as specified by the contracting activity. All lubricants, fluids, and associated products identified in the manual, supplemental data, or separate lubrication chart must have a Government identifier (military specification number, NSN, etc.) that identifies the product beyond the product name and provides the user with requisitioning information.

5.10 **Spare/repair parts.** Manuals shall be supplemented with applicable spare/repair parts breakdown information in accordance with applicable service parts list, Illustrated Parts Breakdown (IPB), and Repair Parts and Special Tools List (RPSTL) specifications.

5.11 **Copyright release/rights in data.** The supplemental data shall include the appropriate copyright release or rights in data statements) in accordance with the FAR (and its applicable supplements) and as established by the contract.

6. NOTES

6.1 **Intended use.** This handbook serves as a tool to evaluate COTS Manuals for acceptability. It provides evaluation criteria and worksheets to use in the evaluation process. It also provides a selection sheet for use in selecting supplemental data.

6.2 **Sample qualification.** Sample manuals should be evaluated using Appendix A, Manuals Evaluation Checklist, or other applicable documents determined by the contracting activity. Preestablished checklists may not contain all criteria since manual content criteria depends on the item(s) covered by the manual.

6.3 **Accountability Certification.** A COTS manual may be certified as acceptable using the Acceptability Certification Sheet provided in Appendix B.

6.4 **Subject term (key word) listing.**

- a. Acceptability Certification
- b. Identifying Technical Publication Sheet
- c. Manuals Evaluation Checklist
- d. Supplemental Data

**IDENTIFYING TECHNICAL PUBLICATION SHEET
FOR
COMMERCIAL MANUAL**

(Supersedure note, or other special notes, if any)

1. **PURPOSE:** This technical publication is issued for the purpose of identifying and authorizing the following commercial manual for (Army)(Navy) (Marine Corps) (Air Force) (Defense Logistics Agency) (as appropriate) use.

MANUFACTURER: (Name and address)

PURCHASE ORDER OR CONTRACT NO.

REQUISITION NO. (if furnished by the contracting activity)

EQUIPMENT: (Type, model, part number, nomenclature, Federal Item Name, serial numbers.)

NATIONAL STOCK NUMBER (if furnished by the contracting activity.)

TITLE: (Operating Instructions, Maintenance Instructions, Parts Lists, as appropriate)

ADDITIONAL IDENTIFICATION: (if any) Volumes, Parts, etc.

DATE: (if any)

2. **ADDITIONAL COPIES:** Additional copies are available from _____
(Contracting activity will furnish information, but if no information is furnished, this paragraph will be omitted and the following paragraph moved up into its place.)

3. **FILE LOCATION:** The above described commercial manual is filed in _____
(Each library will fill this in if this identifying technical publication sheet is filed separately from the commercial manual.)

4. **AUTHORITY NOTICE, DISTRIBUTION STATEMENT, DISCLOSURE NOTICE** (as applicable, in accordance with MIL-M-38784).

FOR UNCLASSIFIED MANUALS

NOTICE: Reproduction for non-military use of the information or illustrations contained in this publication is not permitted. The policy for military reproduction is established for the Army in AR 38-4, for the Navy and Marine Corps in OPNAVINST 5510.1, and for the Air Force in AFD 34-1.

FOR CLASSIFIED MANUALS

NOTICE: This material contains information affecting the national defense of the United States within the meaning of the Espionage Laws, Title 18, U.S.C., Section 793 and 794, the transmission or revelation of which in any manner to an unauthorized person is prohibited by law.

FIGURE 1. Example - identifying technical publication sheet for commercial manual.

**IDENTIFYING TECHNICAL PUBLICATION SHEET
FOR
COMMERCIAL MANUAL**

(Supersedure note, or other special notes, if any)

1. **PURPOSE:** This technical publication is issued for the purpose of identifying and authorizing the following commercial manual for (Army)(Navy) (Marine Corps) (Air Force) (Defense Logistics Agency) (as appropriate) use.

MANUFACTURER: (Name and address)
PURCHASE ORDER OR CONTRACT NO.
REQUISITION NO. (if furnished by the contracting activity)
EQUIPMENT: (Type, model, part number, nomenclature, Federal Item Name,
serial numbers.)
NATIONAL STOCK NUMBER (if furnished by the contracting activity.)
TITLE: (Operating Instructions, Maintenance Instructions, Parts Lists, as appropriate)
ADDITIONAL IDENTIFICATION: (if any) Volumes, Parts, etc.
DATE: (if any)

2. **ADDITIONAL COPIES:** Additional copies are available from _____ (Contracting activity will furnish information, but if no information is furnished, this paragraph will be omitted and the following paragraph moved up into its place.)

3. **FILE LOCATION:** The above described commercial manual is filed in _____. (Each library will fill this in if this identifying technical publication sheet is filed separately from the commercial manual.)

4. **AUTHORITY NOTICE, DISTRIBUTION STATEMENT, DISCLOSURE NOTICE** (as applicable, in accordance with MIL-M-38784).

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SUPPLEMENTAL DATA

1. **LIST OF AFFECTED PAGES IN BASIC MANUAL.** This list will identify pages by number, and date thereon that have been deleted and added by incorporation of supplemental data

2. **SUPPLEMENTARY INFORMATION.** The information contained in the above identified commercial manual is supplemented as follows:

- a. Introduction/Description
- b. Preparation for Use and Installation Instructions
- c. General Theory of Operation
- d. Operating and Maintenance Instructions
- e. Parts List

(Data will be inserted by the contractor as required by the contracting activity)

FIGURE 2. Example - identifying technical publication sheet for commercial manual/supplemental data.

APPROVAL AND PROCUREMENT RECORD PAGE

APPROVAL DATE FOR: Defense Personnel Support Center Technical
Manual for X-Ray

APPARATUS, 300 MA R-F, 220 Volt, 60 Cycle, AC

PUBLICATION/CONTROL NUMBER:

APPROVAL AUTHORITY: Defense Logistics Agency letter dated _____

CONTRACT OR ORDER	NUMBER OF UNITS	QUANTITY OF MANUALS
DLA-700	4	2 plus 2 per unit Total: 10

REMARKS :

NONE

CERTIFICATION:

DATE: _____

It is hereby certified that the DPSC Technical Manual for X-Ray Apparatus, 300 MA R-F, 220 Volt, 60 Cycle, AC, to be provided under Contract DLA-700, has been approved by the approval date shown above.

(Signature typed) (Title)
Contractor's Name
Contractor's Address

FIGURE 3. Example - approval and procurement record page.

APPENDIX A
COTS MANUALS EVALUATION

10. SCOPE.

10.1 **Scope.** This appendix may be used by contracting activities to evaluate COTS manuals to determine their acceptability for use by Department of Defense activities.

10.2 **Application.** This appendix is intended to be copied or reproduced and completed to determine whether or not the reviewed manuals prove to be acceptable or nonacceptable. Appendix A, COTS Manuals Evaluation Checklist and Appendix B, COTS Acceptability Certification are companions in that decisions reflected on the completed certification reflect evaluations shown on the completed checklist.

10.3 **Limitations.** This appendix is limited in that it provides evaluation results and recommended action(s) to be taken concerning the use and acquisition of COTS manuals only. In itself, it is not to be construed as an acquisition document but may be helpful in selecting applicable supplemental data.

10.4 **Explanation of columns -- Manuals Evaluation Checklist.**

a. **CRITERIA -- (PARAGRAPH) column.** The CRITERIA (PARAGRAPH) column contains the name of the criteria followed by the number of the paragraph where the information is specified.

b. **MANUAL CONTAINS column.** If the manual contains the adjacent criteria completely, mark an "x" in this column.

c. **MANUAL PARTIALLY CONTAINS column.** If the manual contains some but not all of the adjacent criteria, mark an "x" in this column.

d. **MANUAL DOES NOT CONTAIN column.** If the manual doesn't contain any of the adjacent criteria, mark an "x" in this column.

e. **N/A column.** If the adjacent criteria is not applicable to the manual, mark an "x" in this column.

10.5 **Comments/Notes.** Make any necessary comments/notes in the space provided at the end of the table. If more space is needed, add extra sheets of paper. Key the additional comments to the numbered criteria.

20. **APPLICABLE DOCUMENTS.** This section is not applicable to this appendix.

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APPENDIX A
COTS MANUALS EVALUATION CHECKLIST

PUBLICATION TITLE: _____

PUBLICATION NUMBER: _____

PUBLICATION DATE: _____

VENDOR: _____

CONTRACT NUMBER: _____

EQUIPMENT MODEL NUMBER: _____

EQUIPMENT NAME: _____

CRITERIA -- (PARAGRAPH)	MANUAL CONTAINS	MANUAL PARTIALLY CONTAINS	MANUAL DOES NOT CONTAIN	N/A
1. Comprehensibility (4.1.1)				
2. Readability (4.1.1)				
3. Legibility (4.1.1)				
4. Arrangement (4.1.2)				
5. Size (4.1.3)				
6. Safety (4.1.4)				
7. Warnings/cautions/notes (4.1.5)				
8. Federal protection standards (4.1.6)				
9. Illustrations (4.1.7)				
10. Maintenance (4.1.8)				
11. Copyright release (4.1.9)				
12. Cover (4.2.1.1)				
13. Table of contents (4.2.1.2)				
14. Safety precautions (4.2.1.3)				
15. Introduction (4.2.2)				
16. Preparation for use (4.2.3)				
17. Principles of operation (4.2.4)				

APPENDIX A
COTS MANUALS EVALUATION CHECKLIST

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CRITERIA -- (PARAGRAPH)	MANUAL CONTAINS	MANUAL PARTIALLY CONTAINS	MANUAL DOES NOT CONTAIN	N/A
18. Operating instructions (4.2.5)				
19. Maint & Serv Instructions (prev & corr) (4.2.6)				
21. Performance verification (4.2.6.2)				
22. Inspection (4.2.6.3)				
23. Troubleshooting (4.2.6.4)				
24. Disassy, rep, repl, reassy, & ckout (4.2.6.5)				
25. Reprogramming (4.2.7)				
26. Preparation for shipment (4.2.8)				
27. Storage (4.2.9)				
28. Parts list (4.2.10)				
29. Oper & maint illustrations (4.2.11)				
30. Diagrams (4.2.11.1)				
31. Overhaul instructions (4.2.12)				
32. Interactive Electronic Technical Manual (IETM) (4.2.13)				

ACCEPTABLE _____ NOT ACCEPTABLE _____

ACCEPTABLE WITH SUPPLMONTAL DATA REQUIRED? _____

PUBLICATIONS REVIEW ACTIVITY: _____

ACTIVITY REVIEWER: _____

(signature)

DATE: _____

**APPENDIX A
COTS MANUALS EVALUATION CHECKLIST**

PUBLICATION TITLE: Hydraulic Alternator Safety operation & Maintenance Manual
 PUBLICATION NUMBER: N/A
 PUBLICATION DATE: 7/89
 VENDOR: Stanley
 CONTRACT NUMBER: DAAK01-93-C-0053
 EQUIPMENT MODEL NUMBER: AL 35
 EQUIPMENT NAME: Hydraulic Alternator

CRITERIA -- (PARAGRAPH)	MANUAL CONTAINS	MANUAL PARTIALLY CONTAINS	MANUAL DOES NOT CONTAIN	N/A
1. Comprehensibility (4.1.1)	✓			
2. Readability (4.1.1.)	✓			
3. Legibility (4.1.1)	✓			
4. Arrangement (4.1.2)				
5. Size (4.1.3)	✓			
6. Safety (4.1.4)				
7. Warnings/cautions/notes (4.1.5)	✓			
8. Federal protection standards (4.1.6)	✓			
9. Illustrations (4.1.7)	✓			
10. Maintenance (4.1.8)	✓			
11. Copyright release (4.1.9)			✓	
12. Cover (4.2.1.1)			✓	
13. Table of contents (4.2.1.2)			✓	
14. Safety precautions (4.2.1.3)	✓			
15. Introduction (4.2.2)			✓	
16. Preparation for use (4.2.3)	✓			
17. Principles of operation (4.2.4)			✓	

APPENDIX A
COTS MANUALS EVALUATION CHECKLIST (CONT)

CRITERIA -- (PARAGRAPH)	MANUAL CONTAINS	MANUAL PARTIALLY CONTAINS	MANUAL DOES NOT CONTAIN	N/A
18. Operating instructions (4.2.5)	✓			
19. Maint & Serv Instructions (prev & corr) (4.2.6)	✓			
20. Cleaning & Lubrication (4.2.6.1)	✓			
21. Performance verification (4.2.6.2)			✓	
22. Inspection (4.2.6.3)				
23. Troubleshooting (4.2.6.4)				
24. Disassy, rep, repl, reassy & ckout (4.2.6.5)	✓			
25. Reprogramming (4.2.7)				✓
26. Preparation for shipment (4.2.8)			✓	
27. Storage (4.2.9)			✓	
28. Parts list (4.2.10)	✓			
29. Oper & Maint illustra- tions (4.2.11)	✓			
30. Diagrams (4.2.11.1)				✓
31. Overhaul instructions (4.2.12)				✓
32. Interactive Electronic Tech Manuals (IETM) (4.2.13)	✓			

ACCEPTABLE _____ NOT ACCEPTABLE _____

ACCEPTABLE WITH SUPPLEMENTAL DATA REQUIRED? ✓

PUBLICATIONS REVIEW ACTIVITY: ATCOM

ACTIVITY REVIEWER: Terrance Bido
 (signature)

DATE: 11 April 1994

APPENDIX B
ACCEPTABILITY CERTIFICATION
(COTS Manual)

10. SCOPE.

10.1 **Scope**. This appendix may be used as required by the contracting activity to certify the acceptability or nonacceptability of COTS manuals.

10.2 **Application**. This appendix is intended to be copied or reproduced and completed when the COTS manuals are evaluated by use of Appendix A. It will reflect the evaluations shown on the Manuals Evaluation Checklist, Appendix A. If the COTS manual is determined to be acceptable the ACCEPTABLE block will be marked with an "X", and one of the sub-boxes must be marked to indicate any further action required. When the COTS manuals are not acceptable, the NOT ACCEPTABLE block will be marked.

20. **APPLICABLE DOCUMENTS**. This section is not applicable to this appendix.

APPENDIX B
ACCEPTABILITY CERTIFICATION
(COTS Manual)

Procurement/Contract No. _____

Equipment Model No. _____

Equipment Name _____

Manual Publication No. _____

() ACCEPTABLE

() No further action required. Use as is.

() Corrections/substitutions required.
Attach sheet specifying details.

() Supplemental data required.

() NOT ACCEPTABLE. Prepare TM per applicable
military requirements and guidance.

The above recommendation is based on the completed Manual
Evaluation Checklist.

PUBLICATIONS REVIEW ACTIVITY: _____

ACTIVITY REVIEWER: _____

(signature)

DATE: _____

**APPENDIX B
ACCEPTABILITY CERTIFICATION
(COTS Manual)**

Procurement/Contract No. DAA K01-93-C-0053

Equipment Model No. AL35

Equipment Name Hydraulic Alternator

Manual Publication No. N/A

☒ **ACCEPTABLE**

☐ **No further action required. Use as is.**

☐ **Corrections/substitutions required. Attach sheet specifying details.**

☒ **Supplemental data required.**

☐ **NOT ACCEPTABLE. Prepare TM per applicable military specification.**

The above recommendation is based on the completed Manual Evaluation Checklist.

PUBLICATIONS REVIEW ACTIVITY: ATCOM

ACTIVITY REVIEWER: Terrance Bido
(signature)

DATE: 11 April 1995

APPENDIX C
CONTENT/FORMAT SELECTION SUMMARY

10. SCOPE.

10.1 **Scope.** This appendix is not a mandatory part of this handbook. Completion of the Content/Format Selection Summary Sheet may be used for acquisition of supplemental data for COTS manuals. (See 6.3.1/6.3.4) Information contained herein is for guidance or compliance as determined by the contracting activity.

10.1.1 **Content/Format Selection Summary Sheet(s).** The summary sheet(s) (the following pages) may be reproduced or adapted for specific application; however, the content and format should remain unchanged.

10.2 **Completion of Summary Sheets.** The contracting activity is responsible for filling in the pertinent information (contract number, manufacturer, model number, acquiring/contracting activity, etc.) at the top of the sheet and for indicating data required. All supplemental data required for a specific acquisition should be indicated by a "X" in the SELECTED CONTENT column.

10.3 Explanation of columns - Content-Format Selection Summary.

- a. Column (1), (Item No.) - self-explanatory.
- b. Column (2), (Criteria) - identifies the criteria.
- c. Column (3), (Applicable Paragraph Number) - identifies the paragraph where the criteria in column (2) is stated.
- d. Column (4), subcolumn (a), (Requirement Selected (yes)) - is marked with an "X" if the criteria in column (2) is needed.
- e. Column (4), subcolumn (b), (Criteria Selected (no)) - is marked with an "XI" if the criteria in column (2) is not needed.
- f. Column (4), subcolumn (c), (Explanation/Remarks) is used when a yes or a no alone is not adequate to completely identify the requirement. If necessary, additional explanation/information may be provided on a separate sheet(s) of paper and attached to this summary list when completed.

20. **APPLICABLE DOCUMENTS.** This section is not applicable to this appendix.

APPENDIX C
CONTENT/FORMAT SELECTION SUMMARY SHEET

SUPPLEMENTAL DATA FOR _____

MANUFACTURER _____

ACQUIRING/CONTRACTING ACTIVITY _____

CONTRACT NO. _____

MODEL NO. _____

(1) Item No.	(2) Criteria (Optional)	(3) Applicable Paragraph No.	(4)		
			(a)	(b)	(c)
			Option Selected		Explanation/Remarks
			(Yes)	(No)	
1	Identifying Tech Publication Sheet	5.1.1			
2	Style/format/ form	5.1.2			
3	Cover & Title page	5.2.a			
4	List of Effective Pages	5.2.b			
5	Safety precautions, warning page	5.2.c			
6	Approval and procurement record page	5.2.d			
7	Table of contents	5.2.e			
8	Reporting of errors statement	5.2.f			
9	Maintenance and records	5.2.g			

APPENDIX C
CONTENT/FORMAT SELECTION SUMMARY SHEET

CONTRACT NO. _____

(1) Item No.	(2) Criteria (Optional)	(3) Applicable Paragraph No.	(4)		
			(a)	(b)	(c)
			Option Selected		Explanation/Remarks
			(Yes)	(No)	
10	Admin storage	5.2.h			
11	Destruction of Military Materiel	5.2.i			
12	Lube Order/Instr	5.2.j			
13	Prev Maintenance	5.2.k			
14	Maintenance Allocation Chart (MAC)	5.2.l			
15	Component of End Item & Basic Issue Items List	5.2.m			
16	Additional Authroization List	5.2.n			
17	expendable supplies & material list	5.2.o			
18	Repair parts & special tools list (RPSTL)	5.2.p			
19	Recommend changes, activity comment sheet, TM deficiency report	5.2.q			

APPENDIX C
CONTENT/FORMAT SELECTION SUMMARY SHEET

CONTRACT NO. _____

(1) Item No.	(2) Criteria (Optional)	(3) Applicable Paragraph No.	(4)		
			(a)	(b)	(c)
			Option Selected		Explanation/Remarks
			(Yes)	(No)	
20	Other as indicated on Appendix A Evaluation Checklist	5.2.r			
21	Warranty Information	5.3			
22	Equip/model coverage	5.5			
23	End Item Indentification	5.6			
24	Publication No./date	5.7			

COMPLETED BY: _____
 (authorized signature)

PUBLICATIONS ACTIVITY: _____ DATE: _____

APPENDIX C

CONTENT/FORMAT SELECTION SUMMARY SHEET

SUPPLEMENTAL DATA FOR Hydraulic AlternatorMANUFACTURER StanleyACQUIRING/CONTRACTING ACTIVITY ATCOMCONTRACT NO. DAA K01-93-C-0053MODEL NO. AL 35

(1) Item No.	(2) Criteria (Options)	(3) Applicable Paragraph No.	(4)		
			(a)	(b)	(c)
			Options Selected		Explanation/Remarks
			(yes)	(no)	
1	Identifying Tech Public- ation Sheet	5.1.1	X		IAW Figures 1 & 2
2	Style/format/ form	5.1.2			
3	Cover & Title Page	5.2.a	X		
4	List of Effective Pages	5.2.b 5.8		X	
5	Safety pre- cautions, warning page	5.2.c		X	
6	Approval and procurement record page	5.2.d		X	
7	Table of contents	5.2.e	X		IAW MIL-M-38784
8	Reporting of errors statement	5.2.f		X	
9	Maintenance and records	5.2.g		X	

APPENDIX C
CONTENT/FORMAT SELECTION SUMMARY SHEET

CONTRACT NO. DAAK01-93-C-0053

(1) Item No.	(2) Criteria (Options)	(3) Applicable Paragraph No.	(4)		
			(a)	(b)	(c)
			Options Selected		Explanation/Remarks
			(yes)	(no)	
10	Admin storage	5.2.h		X	
11	Destruction of Military Materiel	5.2.i		X	
12	Lub order/instr	5.2.j		X	
13	Prev Maint	5.2.k		X	
14	Maint Alloca- tion Chart (MAC)	5.2.l	X		I AW MIL-M-63038
15	Component of End Item & Basic Issue Item lists	5.2.m		X	
16	Additional authorization list	5.2.n		X	
17	Expendable supplies & material list	5.2.o		X	
18	Repair parts & special tools list (RPSTL)	5.2.p 5.10	X		Contractor format
19	Recommend changes, activity comment sheet, TM deficiency report	3.3.3q		X	

Sheet 2 of 3

APPENDIX C

CONTENT/FORMAT SELECTION SUMMARY SHEET

CONTRACT NO. DAAK01-93-C-6053

(1) Item No.	(2) Criteria (Options)	(3) Applicable Paragraph No.	(4)		
			(a)	(b)	(c)
			Options Selected		Explanation/Remarks
			(yes)	(no)	
20	Other as indicated on Appendix A Evaluation Checklist	5.2.r	X		IAW MIL-M-38784 MIL-M-63036 MIL-M-63038
21	Warranty Information	5.3		X	
22	Equipment/ model	5.5		X	
23	End item identification	5.6		X	
24	Publication No. - date	5.7		X	

COMPLETED BY: Terance Bido
(authorized signature)PUBLICATIONS ACTIVITY: ATCOM DATE: 11 April 1995

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Custodians:

Army - TM
Navy - OS
Air Force- 16
Defense Logistics Agency - CS

Preparing Activity:

Army - TM
Project TMSS 0306

Review Activities:

Army - AR, AL, AT, AV, CR, ME, MI, CU
Navy - AS, EC, MC, OM, SA, SH, TD
Air Force - 01, 10,
Defense Logistics Agency - GS, CT

User Activities:

Army - MD
Navy - CG
Air Force - 11, 13, 19, 70, 71, 80, 82, 84

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1,2,3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4,5,6, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of this form.

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

I RECOMMEND A CHANGE	1.DOCUMENT NUMBER MIL-HDBK-1221	2.DOCUMENT DATE (YYMMDD) 950828
3.DOCUMENT TITLE Commercial Off-the-Shelf (COTS) Manuals		
4.NATURE OF CHANGE <i>(Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)</i>		
5.REASON FOR RECOMMENDATION		
6.SUBMITTER		
a.NAME <i>(Last, First, Middle Initial)</i>	b.ORGANIZATION	
c.ADDRESS <i>(Include Zip Code)</i>	d.TELEPHONE <i>(Include Area Code)</i> (1)Commercial (2)AUTOVON <i>(If applicable)</i>	7.DATE SUBMITTED (YYMMDD)
8.PREPARING ACTIVITY		
a.NAME USAMC Logistics Support Activity	b.TELEPHONE <i>(Include Area Code)</i> (1)Commercial (205) 955-9860 (2)AUTOVON 645-9860	
c.ADDRESS <i>(Include Zip Code)</i> ATTN: AMXLS-APA Redstone Arsenal, AL 35898-7466	IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT: Defense Quality and Standardization Office 5203 Leesburg Pike, Suite 1403, Falls Church, VA 22041-3466 Telephone (703) 756-2340 AUTOVON 289-2340	

Executive Director
USAMC Logistics Support Activity
ATTN: AMXLS-APA (Armstrong)
Redstone Arsenal, AL 35898-7466